

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 21-24 and 27-39 are pending in this application. Claims 21-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 6,492,633 to Nakazawa et al. (herein "Nakazawa") in view of U.S. patent 4,918,262 to Flowers et al. (herein "Flowers"). Claims 27-29 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nakazawa and Flowers as applied to claims 21-24, and in further view of JP 09319501 to Fumihiko et al. (herein "Fumihiko"). Claim 39 was rejected under 35 U.S.C. § 103(a) as unpatentable over Nakazawa and Flowers as applied to claim 21, and further in view of U.S. patent 6,225,986 to Sato et al. (herein "Sato").

Initially, applicant and applicant's representative wish to thank Examiner Shapiro for the interview granted applicant's representative on May 23, 2006. During the interview the outstanding rejections were discussed in detail. Further, during the interview applicant's representative presented comments to Examiner Shapiro as to how the claims as currently written distinguished over the applied. Those comments are reiterated below. Examiner Shapiro indicated he would further consider such comments when formally presented in a filed response.

Addressing the above-noted prior art rejections, those rejections were traversed by the present response.

The claims are directed to a coordinate input-detecting apparatus that includes a touch panel to be touched by a pointer. In the claims a controller detects the pointer being inserted into the coordinate input-detecting area when a digital data detected by an optical unit exceeds a first threshold value. That is, that first threshold value is utilized to detect insertion of a pointer into a coordinate input-detecting area. That first threshold value is not utilized to detect the actual coordinates of the inserted pointer.

The controller further calculates a distance between the optical unit and the pointer from the digital data, and sets a second threshold value higher than that of the first threshold value in accordance with the distance calculated, and calculates coordinates from the digital data when the digital data exceeds the second threshold value. That is, that second threshold value is actually utilized to calculate the coordinates of the inserted pointer. That second threshold value is also set based on a distance between an optical unit and a pointer. With reference to Figure 4 in the present specification as a non-limiting example, the distances a and b indicate the distance between the inserted pointer and an optical unit. Those distances a and b are utilized to set the second threshold value. That subject matter is also discussed in the present specification at page 19, line 12 et seq.

With such a claimed structure, the first threshold is generally set to detect the entrance of a pointer into a specific coordinate input-detecting area. Then, the second threshold, set at a higher value than the first threshold based on a detected distance from optical units, narrows a range of detection, i.e., is not as sensitive as the first threshold. Such operations can provide a benefit of suppressing a trail ghost when a pointer is removed from a touch panel.

The features recited in the claims are believed to be clearly neither taught nor suggested by the applied art.

The outstanding rejection relies on Nakazawa to disclose the claimed first threshold value. In that respect the outstanding Office Action indicates Nakazawa discloses:

a controller configured to detect the pointer inserted into the coordinate input-detecting area when the digital data detected by optical unit exceeds a first (Fig. 4, item Ref) threshold value (See Fig. 4, items 5, 32-33, Col. 8, Lines 35-42);

wherein controller calculates the coordinates from the digital data when the digital data exceeds the first threshold value (Fig. 4, item Ref) between the pointer and the optical unit (See Fig. 4, items 5, 32a-35a, Ref and Fig. 6, item Ref).¹

¹ Office Action of April 5, 2006, page 3, first two paragraphs.

The above-noted basis for the outstanding rejection is misconstruing the teachings in Nakazawa relative to the claimed features. The use of the threshold value Ref in Nakazawa is utilized to detect coordinate values of an inserted pointer. As expressly stated above, the basis for the outstanding Office Action notes Nakazawa discloses “wherein controller *calculates the coordinates* from the digital data when the digital data exceeds the first threshold value” (emphasis added). Thus, as recognized in the Office Action in Nakazawa that reference value Ref is utilized to determine coordinate values.

The claims require a different operation as in the claims the first threshold value is utilized to detect a pointer being inserted into a coordinate input-detecting area. The claims operate such that a subsequent second threshold value is utilized to detect the actual coordinates. Nakazawa is directed to a contrary type of system in that Nakazawa only utilizes a single threshold to detect only the coordinate values. Nakazawa does not disclose nor could be utilized in any type of device that utilizes two different threshold values, one to detect a pointer insertion and another to detect a threshold value.

The outstanding rejection recognizes other deficiencies in Nakazawa and states:

Nakazawa et al. does not disclose controller calculates a distance between the optical unit and the pointer from the digital data and sets a second threshold value higher than of the first threshold in accordance with the distance calculated.²

In response to that recognized deficiency in Nakazawa, applicants submit Nakazawa discloses only a threshold value utilized to detect coordinate values. Nakazawa does *not*, however, disclose *detecting a distance between an optical unit and a pointer to set such a threshold value*. As noted above, the threshold value noted in Nakazawa, Ref, is utilized to detect coordinate values and thus at most would correspond to the claimed second threshold value. In Nakazawa that threshold Ref is *not* set based on a detected distance from an inserted pointer to optical units.

² Office Action of April 5, 2006, page 3, third paragraph.

In any event, to overcome the recognized deficiencies in Nakazawa the outstanding Office Action cites Flowers and states:

Flowers et al. teaches controller calculates a distance between the optical unit and the pointer from the digital data (See Col. 4, Lines 14-16) and sets a second threshold value (Fig. 5, item # 4) higher than of the first threshold (Fig. 5, item # 3) in accordance with the distance calculated (See Fig. 5, items # 3-4, Col. 8, Lines 7-27 and Col. 12, Lines 1-9).³

In response to the above-noted basis for the outstanding rejection, applicants first note Flowers does **not** disclose calculating a distance between an optical unit and a pointer. For that limitation as noted above the outstanding Office Action cites Flowers at column 4, lines 14-16. At that portion Flowers states “[i]ts final output over cable 14 consists of X and Y locational data together with the Z force input that has been measured by the strain gauges 13 as processed in the electronic calculating and processing circuitry on card 12”. That disclosure in Flowers merely refers to a cable 14 that can output three pieces of data, namely X and Y data of a touch screen being touched, and force data Z of a force utilized to touch the screen. That portion of Nakazawa does not disclose or suggest any operation of calculating a distance between optical units and a pointer.

With reference to Figure 4 in the present specification as a non-limiting example, the distances a and b, which are distances from an inserted pointer P to optical units 5, are detected. The claims utilize such a distance to **set** a second threshold value. Flowers also does not disclose or suggest that feature.

Flowers is directed to a touch sensing display screen and does not disclose or suggest detecting any distance from optical units. In fact, Flowers does not appear to even utilize optical units as it is directed to a touch screen that measures a force of a screen being touched. Thus, the teachings in Flowers are completely irrelevant to the claimed features.

³ Office Action of April 5, 2006, page 3, fourth paragraph.

Moreover, Flowers does not disclose or suggest any operation in which a second threshold value is set based on the claimed measured distances.

The basis for the outstanding rejected noted above cites Figure 5 and item #4 in Flowers as a second threshold. That disclosure in Flowers is directed to setting different force levels for when a user touches a screen. Such thresholds in Flowers are *not* based on a distance determined from a pointer initially inserted into a coordinate input-detecting area to optical units. The setting of the dynamic threshold #4 in Flowers has no relation whatsoever to, for example, distances a and b shown in Figure 4 in the present specification.

Further, applicants note the teachings in Flowers are also inapplicable to the teachings in Nakazawa.

As noted above, Flowers is directed to a system to change the amount of force needed on a touch screen. Nakazawa is not directed to such a touch screen but instead is directed to an optical scanning-type touch panel in which the amount of force on a screen has no relevance to position data. Instead, Nakazawa utilizes scanning optics to determine a position being pointed to on a screen. Thereby, the entire concept of changing a touch force as in Flowers is irrelevant to Nakazawa.

Moreover, applicants note it is also only applicants of the present invention that have utilized a system such as claimed in which a first threshold is utilized to detect the insertion of a pointer into a coordinate input-detecting area and a second threshold is utilized to determine the actual coordinates of the inserted pointer, and further the second threshold is determined based on a distance between an optical unit and the inserted pointer. The teachings of Nakazawa and Flowers do not address anything even similar to such claimed features.

In view of these foregoing comments, applicants respectfully submit the claims as currently written clearly distinguish over the combination of teachings of Nakazawa in view of Flowers.

Moreover, no teachings in the further references to Fumihiko or Sato are believed to overcome the above-noted deficiencies of Nakazawa in view of Flowers.

In view of these foregoing comments, applicants respectfully submit the claims as currently written clearly distinguish of the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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